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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/156,580 09/18/98 TAKATSUJI

H 085761-0004

HM22/0217

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EXAMINER

MEHTA, A

ART UNIT

PAPER NUMBER

1649

DATE MAILED:

02/17/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/156,580

Applicant(s)

TAKATSUJI et al

Examiner

Ashwin Mehta

Group Art Unit

1638



☒ Responsive to communication(s) filed on Dec 23, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1, 2, and 4-21 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1, 2, and 4-21 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☒ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Art Unit 1638

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1638.

Claim Rejections

2. Claims 1, 2, 4-7 (all amended), 8, and 9 remain and new claims 10-21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, for the reasons of record stated in the last office action for claims 1-9 on pages 2-4, item 1.

Applicant's arguments filed 23 December 1999 have been fully considered as they apply to claims 1, 2, 4-7 (all amended), 8, 9, and new claims 10-21, but they are not found persuasive. Applicants argue that because the claims are directed to sequences that hybridize to bases 190-807 of SEQ ID NO: 1, that the written description requirement for providing the physical properties of a DNA sequence are satisfied. Applicants further argue that the ability of a nucleic acid to hybridize to a particular sequence reflects the structure of a nucleic acid, and that it is

Art Unit 1638

similar to the recited sequence. However, any two nucleotide sequences would hybridize to each other given the appropriate stringency conditions. The claims are not drawn to any specific stringency condition. As discussed in the last office action, a gene is not reduced to practice until its DNA sequence is taught. Also see Fiers 25 USPQ 2d (CAFC 1993) at 1606, which states that “[a]n adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself”. The rejection is maintained for claims 1-9 and applied to new claims 10-21.

3. Claims 1, 2, and 4-7 (all amended), 8, and 9 remain and new claims 10-21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention for the reasons of record stated in the first office action for claims 1-9 on pages 4-5 under item 2.

Applicant's arguments have been fully considered as they apply to claims 1, 2, 4-7 (all amended), 8, 9, and new claims 10-21 but they are not found persuasive. Applicants argue that page 7, lines 21-32 of the specification teaches how to isolate polynucleotides using the disclosed PCR primers, and that Example 2 describes how to analyze the sequences of the invention. However, the scope of the claims is not directed to sequences isolated using the disclosed PCR primers. Example 2 discusses nucleotide sequence similarity. One skilled in the art cannot conclude that a hybridizing sequence is a functional homolog of PetSPL2 based on sequence

Art Unit 1638

similarity alone, but would also need to determine if its mechanism of action is similar to that of PetSPL2. The specification also does not provide guidance in preparing nucleotide sequences that encode deletions, substitutions, or additions to positions 1-206 of SEQ ID NO: 2 in which the properties of PetSPL2 are conserved. One is left to randomly produce fragments of any length that include the amino acid sequence listed in claims 2 and 11, and assay them for conservation of function, constituting undue experimentation. The rejection is maintained for claims 1, 2, and 4-9 and applied to new claims 10-21.

4. Claims 1, 2, 4-7 (all amended), 8, and 9 remain and new claims 10-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are indefinite because the stringent conditions of claim 1 and 10, part b), are not known.

Further regarding claim 2- it is not clear whether the 1) in line 7 is referring to part I) of the same claim, or to claim 1.

Further regarding claims 10, 11, 13, 14, and 16-17- the claims are indefinite because it is unclear what "characters of a plant" are being referred to I claim 10, part b) and claim 11, part ii).

Further regarding claim 11- the claim is a Markush-type claim that employs incorrect Markush terminology. The "or" in line 4 should be --and--. See MPEP § 2173.05(h).

Art Unit 1638

Claim Objections

5. Claim 2 (amended) and new claim 11 are objected to under 37 CFR 1.821 (d) for failing to identify the amino acid sequence in part ii) of the claims by a SEQ ID NO. Note that if the sequence does not currently appear in the sequence listing, the Applicant will be required to submit a substitute CRF and paper-copy of the sequence listing, as per the sequence rules of 37 CFR 1.821 - 1.825. New matter should be avoided.

6. Claim 4 (amended) and new claim 18 are objected to under 37 CFR 1.75 (b) as being duplicate claims. While claim 4 is drawn towards a method for producing a transgenic plant and claim 18 is drawn towards a method of altering characters of a plant, the steps of both methods are identical. Both methods require introduction of the gene of claim 1 into a plant. The properties of the transgenic plant produced by both methods would therefore be identical. The Applicant is required to cancel one of the claims, or amend the claim(s).

7. New claims 12 and 19 are objected to under 37 CFR 1.75 (b) as being duplicate claims for the same reasons indicated for claims 4 and 18 in item 7 above. The Applicant is required to cancel one of the claims, or amend the claim(s).

8. Claim 18 is objected to because of the following informalities: the term "prom" in line 4 should be --from--. Appropriate correction is required.

Art Unit 1638

9. New claims 18-21 are objected for the recitation "a height of a plant and a length of an internode" in the last two lines of each of the claims. Since there could only be one height and length, it is suggested that the recitation be amended to read --the height of a plant and the length of an internode--.

10. No claim is allowed.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Serial Number: 09/09/156,580

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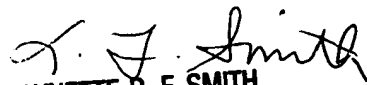
Art Unit 1638

CLOSING REMARKS

Any inquiry concerning this or earlier communications should be directed to Examiner Ashwin Mehta, whose telephone number is (703) 306-4540. The Examiner can normally be reached Monday-Friday, from 8:30 A.M. - 5:00 P.M. The fax phone number for the group is (703) 305-3014. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Lynette Smith, can be reached at (703) 308-3909. Any inquiry of a general nature or relating to the status of the application should be directed to the Group receptionist, whose telephone number is (703) 308-0196.

Ashwin D. Mehta

February 15, 2000


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